

ABSTRACT

A method is disclosed for producing a digital topographic map. A basic map produced through a UTM drawing is divided into grid-like sectors at a predetermined distance. Each sector is further divided into smaller sectors. An interpolation is preformed to connect discontinuous data points between each sector and within each of the sectors. Digital data is produced by relating x-y coordinates of the small sectors obtained through measurement using conventional techniques. Small sectors at the same elevation are connected with a straight line, thereby producing a first topographic map on which the contour lines are formed with line segments. A smoothing process is performed on the contour lines of the first topographic map in order to produce a second topographic on which the contour lines are formed with curved lines that are smoother than the contour lines of the first topographic map. A digital topographic map is subsequently constructed containing smoothly formed contour lines.